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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/638,982

08/12/2003

Donald A. Ice

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6290

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7590

02/24/2006

WORKMAN NYDEGGER  
(F/K/A WORKMAN NYDEGGER & SEELEY)  
60 EAST SOUTH TEMPLE  
1000 EAGLE GATE TOWER  
SALT LAKE CITY, UT 84111

EXAMINER

NGUYEN, HUNG THANH

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

4.0

<b>Office Action Summary</b>	<b>Application No.</b> 10/638,982	<b>Applicant(s)</b> ICE, DONALD A.	
	<b>Examiner</b> HUNG T. NGUYEN	<b>Art Unit</b> 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/5/2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5-9, 16-19, 22 are rejected under 35 U.S.C. 102(b) as being anticipation by Pusateri et al. (US 6,008,995).

**Regard claim 1, 8, 18:** Pusateri et al. discloses in figures 1-7, a functional module configured to be received in an electronic equipment enclosure that includes a card cage, the functional module comprising: a front panel (110); a card (104) that includes electronic circuitry, the card having two side edges (left and right side of 114) and being attached to the front panel (card 104 couples with 110), and the card (104) being supported by the card cage (plurality of card guides and boards, see figure 7) at its two side edges (left and right side of 114), as well as at a location (card 100 is supported between the two side edges by 102) between the side edges (left and right side of 114) when the functional module is received in the electronic equipment enclosure; and at least one connector (102) attached to the card and configured for electrical communication with the electronic circuitry.

**Regard claim 2, 9, 16, 19:** Pusateri et al. discloses in figures 1-7, the functional module wherein the card is at least double-wide (130).

**Regard claim 5, 17, 22:** Pusateri et al. discloses in figures 1-7, The functional module further comprising at least two fasteners (114) that pass through the front panel (explain

in claim 1) and are configured to removably engage the card cage (10), each of the fasteners (114) defining a circumferential slot (80) and comprising; an e-clip (72) substantially disposed in the circumferential slot; and a spring disposed (76) about a portion of the fastener (114).

**Regard claim 6:** Pusateri et al. discloses in figures 1-7, the functional module wherein at least one connector (112) is located proximate the front panel.

**Regard claim 7:** Pusateri et al. discloses in figures 1-7, the functional module wherein the at least one connector (102) is located proximate a rear edge of the card.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4, 11-15, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pusateri et al. (US 6,008,995) in view of Henschen (US 3,533,045).

**Regard claim 3, 11, 12, 14, 15, 20:** Pusateri et al. discloses all elements of the functional module as described above with respect to claim 1 except, Pusateri et al. does not disclose the least one cutout configured and arranged to engage a portion of the card cage proximate the location between the side edges of the card.

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Henschen discloses in figures 1, 9 the least one cutout (54, 76) configured and arranged to engage a portion of the card cage proximate the location between the side edges of the card.

Pusateri et al. and Henschen are analogous art because they are from the same field of endeavor to make circuit boards.

Therefore, it would have been obvious for one ordinary skill in the art at the time of the invention to make circuit board of Pusateri et al. to have a cutout as taught by Henschen for the benefit of supporting the boards from vibration.

**Regard claim 4, 10, 21:** Pusateri et al. discloses all elements of the functional module as described above with respect to claim 1 except, Pusateri et al. does not disclose the card is supported by the card cage at a second location between the side edges.

Henschen discloses in figure 1, 9 the card is supported by the card cage (56, 76) at a second location between the side edges.

Pusateri et al. and Henschen are analogous art because they are from the same field of endeavor to make circuit board.

Therefore, it would have been obvious for one ordinary skill in the art at the time of the invention to make boards of Pusateri et al. to be supported between two side edges as taught by Henschen for the benefit of supporting the board from vibration.

**Regard claim 13:** Pusateri et al. discloses in figures 1-7, In an electronic equipment enclosure having a card cage that includes, at least, first and second card guides, as well as a third card guide interposed between the first and second card guides in a spaced apart arrangement configured to receive two single-wide functional modules in

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an edge-to-edge position, a functional module configured to be removably received in the electronic equipment enclosure, the functional module comprising: a front panel (110), a card (104) attached to the front panel (110) and including electronic circuitry (components on card), the card (104) having first (left side of 114) and second side edges (right side of 114) and at least one connector (102) attached to the card (104) and configured for electrical communication with the electronic circuitry.

Pusateri et al. does not disclose at least one cutout having opposing edges and the at least one cutout being interposed between the first and second side edges so that when the functional module is received in the card cage, the first and second side edges of the card are supported by the first and second card guides, respectively, and the opposing edges of the at least one cutout defined by the card are supported by the third card guide.

Henschen discloses in figures 1, 9, at least one cutout (54, 76) having opposing edges and the at least one cutout (54, 76) being interposed between the first (left side of 114) and second side edges (right side of 114) so that when the functional module is received in the card cage (10), the first (left side of 114) and second side edges (right side of 114) of the card (104) are supported by the first and second card guides, respectively, and the opposing edges of the at least one cutout (54, 76) defined by the card are supported by the third card guide (2).

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### Relevant Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Gierut (US 5,648,891) teaches plurality of circuit board, Yamada et al. (US 5,211,568) teaches the connector for an edge card, Regnier (US 5,163,847) teaches an assembly for card edge connector, Hayden et al. (US 5,872,701) teaches the alignment of electronic circuit card, Sarver et al. (US 5,387,132) teaches card edge connector, Biechler et al. (US 5,052,936) teaches an assembly for electrical device.

### Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG T. NGUYEN whose telephone number is 571-272-5983. The examiner can normally be reached on 8:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KAMMIE CUNEO can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

HN

Hung Thanh Nguyen

1/31/06

  
KAMMIE CUNEO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800